

Polygon Rummy

Object: to create geometric figures

Materials needed: one set of *Polygon Rummy* cards for each group

Number of players: 2–4

Teacher Preparation

Print out and copy one set of *Polygon Rummy* cards for each group of 2–4 students.

Game Play

• **Playing the game**

Written on each card in the deck is a property of a geometric figure.

For two players, each player receives 10 cards. For three or four players, each player receives 7 cards. The remainder of the deck is placed face down in the middle of the group for all to reach. A face-up discard pile is formed next to it during play. The player to the dealer's left goes first. The players then take turns, going clockwise.

Player 1 draws one card from the deck or the top card of the discard pile. If it is possible to create a figure, player 1 may do so at this time. Then player 1 discards one card, ending the turn. A player who has fewer than 3 cards can choose not to discard. If all of the cards from the deck are used, the top card is left face up and the rest of the discard pile is shuffled and turned over.

To create a figure, a player draws a polygon that matches at least three different cards. For example, a player who has the cards "quadrilateral," "a pair of parallel sides," and "a right angle" could draw a rectangle. The cards used to create the figure are set aside. A figure that uses 3 cards is worth 10 points, and 5 points are earned for each additional card (4 cards = 15 points, 5 cards = 20 points, and so on). The other players verify the correctness of the figure. If a figure is incorrect, another player may challenge and either draw a correct figure or prove that it is impossible to draw a figure that matches all of the cards. If the challenge is successful, the points are awarded to the challenger.

• **Winning the game**

The round ends when one player uses all of his or her cards. At this point, the other players count the number of cards remaining in their hands, and 5 points for each card are awarded to the player who finished first. The points for all of the figures are totaled, and the deal shifts to the left. The first player to get 100 points wins the game.

**a pair of
complementary
angles**

**a pair of
complementary
angles**

**a pair of
complementary
angles**

**a pair of
supplementary
angles**

**a pair of
supplementary
angles**

**a pair of
supplementary
angles**

**a pair of
congruent
angles**

**a pair of
congruent
angles**

**a pair of
congruent
angles**

**a pair of
congruent
sides**

**a pair of
congruent
sides**

**a pair of
congruent
sides**

**a pair of
parallel
sides**

**a pair of
parallel
sides**

**a pair of
parallel
sides**

**a
right
angle**

**a
right
angle**

**a
right
angle**

all
sides
congruent

all
sides
congruent

all
sides
congruent

all
sides
congruent

all
sides
congruent

all
sides
congruent

triangle

triangle

triangle

triangle

quadrilateral

quadrilateral

quadrilateral

quadrilateral

pentagon

pentagon

pentagon

pentagon

hexagon

hexagon

hexagon

hexagon

all
angles
obtuse

all
angles
obtuse

**all
angles
obtuse**

**all
angles
acute**

**all
angles
acute**

**all
angles
acute**

**no
sides
congruent**

**no
sides
congruent**

**no
sides
congruent**

**no
angles
congruent**

**no
angles
congruent**

**no
angles
congruent**